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| EXAMINER | |
|---|---|
| CASCA, FRED A | |

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/538,420 | RINNE ET AL. | |
| | Examiner | Art Unit | |
| | FRED CASCA | 2617 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *26 February 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

**1.** This action is in response to applicant's amendment filed on February 26, 2010. Claims 1-25 are still pending in the present application. **This Action is made FINAL.**

### *Regarding 101 Issues*

**2.** Independent claims 16 and 17 are directed to computer readable mediums encoded with instructions. The support for these computer readable medium claims found in par. 44 of the specification is acknowledged. Accordingly, the computer readable mediums of claims 16 and 17 and their corresponding dependent claims are interpreted as non-transitory.

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-4, 6-12, 14-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over 3GPP TS 23.234 V6.0.0 2004-03 (hereinafter 3GPP) in view of Moon (US 2003/0163577 A1).

Referring to claim 1, 3GPP discloses a method of arranging transmission of packet data in a system (figure 7.1) comprising a mobile terminal (figure 7.1, "UE"), a wireless local network and a mobile network (Fig. 6.2b and Fig. 7.1), the method comprising:

signaling, end-to-end service related parameters for communication between the mobile terminal and the wireless network (Figures 4.1, 6.2B and 7.1 and page 11, paragraph 5.1, lines 14-15 and page 12, lines 12-18),

communicating a resource authorization identifier to the mobile terminal (Pages 35 and 36, "the WLAN UE sends a NAI to the WLAN AN ... If the WLAN AN is not able to route the authentication request (e.g., in the case where the WLAN AN receives an initial NAI", also see Fig. 4.1, Paragraph 5.1, lines 14-15 and page 12, lines 12-18, "WLAN Access Authorization", "Access to 3GPP PS based services shall be provided via WLAN", note that at least one resource authorization identifier is disclosed e.g., UE's local IP address, *WLAN Authentication signaling* , the Network Access Identifier (NAI), keying material and/or authorization information),

transmitting the resource authorization identifier to the mobile network via the wireless local network (Fig. 4.1, Paragraph 5.1, lines 14-15 and page 12, lines 12-18, "WLAN Access Authorization", "Access to 3GPP PS based services shall be provided via WLAN", "secure tunneling", and paragraph 5.2, lines 1-11, "WLAN Authentication signaling is executed between WLAN UE and 3GPP AAA server"),

receiving a request for authorization from the mobile network on the basis of the resource authorization identifier (Figure. 4.1 and paragraph 5.2, particularly page 13, lines 1-8, "After the authentication process succeeds ... the 3GPP AAA server to decide whether the access is allowed", "WLAN Authentication signaling is executed between WLAN UE and 3GPP AAA server"),

sending an authorization response to bind a communication channel between the mobile terminal and the mobile network to an end-to-end data flow of the mobile terminal wherein the authorization response comprises identification information on the end-to-end data flow and (Figure. 5.1, paragraphs 5.7.2, 5.2, 5.12, Figure 6.1-6.1b, paragraph 6.2.3, figures 7.1 and 7.10. Note that On page 12, 3GPP shows in Par. 5.2 and End to End Authentication between UE and the mobile network over the WLAN network, where the Authentication signaling is between the WLAN AN and the 3GPP network. Further note that on page 19 3GPP shows that the UE initiates the establishment of the tunnel, thus, the UE must send its NAI and IP address (resource authorization identifier) in order to obtain access. Since access to 3GPP is initiated by UE through the WLAN, the WLAN is acting as a relay node and sends the requests to the 3GPP (also see page 25). Also on page 26, 3GPP shows relaying of AAA information between WLAN and the 3GPP AAA server. Here note that the AAA server of the 3GPP network makes sure that the UE is authorized and confirms the UE profile level. Since the authorization is decided by the AAA server based on the UE IP and NAI…, it has to be transmitted from the UE to AAA server through the WLAN).

3GPP dose not explicitly disclose the authorization response also includes tunnel identification information identifying the tunnel.

Moon discloses an authorization response includes tunnel identification information identifying the tunnel (Par. 51 and Fig. 6, note that the RADIUS sending a message is equivalent to the sending of an authorization response).

It would have been obvious to a person of ordinary skill in the art at the time of invention to modify the 3GGP disclosures in the format claimed such that tunnel information is included in

the authorization response since sending the tunnel information in the authorization response would save time and thus it would provide an efficient communication system.

Referring to claim 2, the combination of 3GPP/Moon discloses the method as claimed in claim 1, and further disclose transmitting at least one filter or gate parameter to the mobile network, the at least one filter or gate parameter is associated with the tunnel, and filtering or gating is arranged in the mobile network to/from the tunnel based on the association (3GPP, Fig. 7.4).

Referring to claim 3, the combination of 3GPP/Moon discloses the method as claimed in claim 1, and further discloses the same tunnel between the mobile network and a network element of the mobile network and utilizing the data transmission resources of the local network is used for signaling purposes and for user data transmission (3GPP, Fig. 7.4).

Referring to claim 6, the combination of 3GPP/Moon discloses the method as claimed in claim 1, and further discloses the mobile network is a 3GPP network offering a packet-switched service comprising at least one network element supporting access, via a WLAN (3GPP, Figures 6.1-6.1b and 7.1-7.10).

Referring to claim 7, the combination of 3GPP/Moon discloses the method as claimed in claim 1, and further discloses an association is arranged between the tunnel and a 3GPP-WLAN interworking system bearer (3GPP, Figures 6.1-6.1b and 7.1-7.10).

Referring to claim 8, claim 8 defines a system reciting features analogous to the features defined by the method of claim 1 (as rejected above). Thus, the combination of 3GPP/Moon discloses all elements of claim 8 (please see the rejection of claim 1 above).

Referring to claims 9-12 and 14, claims 9-12 and 14 define a network reciting features analogous to the features defined by the method of claims 1-4 and 6 (as rejected above) respectively. Thus, the combination of 3GPP/Moon discloses all elements of claims 9-12 and 14 (please see the rejection of claims 1-4 and 6 above).

Referring to claims 15-17, claims 15-17 define a terminal and computer products reciting features analogous to the features defined by the method of claim 1 (as rejected above). Thus, the combination of 3GPP/Moon discloses all elements of claims 15-17 (please see the rejection of claim 1 above).

Referring to claim 18, the combination of 3GPP/Moon discloses a wireless terminal as claimed in claim 15, and further discloses the tunnel is used for signaling purposes and for user data transmission (3GPP, Figures 6.1-6.1b and 7.1-7.10).

Claim 20 recite features analogous to the features of claim 18. Thus, the combination of 3GPP/Moon discloses all elements of claim 20 (please see the rejection of claim 18 above).

Claim 22 recites features analogous to the features of claim 1. Thus, the combination of 3GPP/Moon discloses all elements of claims 22 (please see the rejection of claim 1 above).

Claim 23 recites features analogous to the features of claim 21. Thus, the combination of 3GPP/Moon discloses all elements of claims 23 (please see the rejection of claim 21 above).

Referring to claim 24, the combination of 3GPP/Moon discloses a wireless system as claimed in claim 22, and further discloses wherein the signaling element is configured to transmit at least one filter or gate parameter to the wireless network, wherein the at least one filter or gate parameter is associated with the tunnel (3GPP, Figures 7.1-7.10).

Referring to claim 4, the combination of 3GPP/Moon discloses the method as claimed in claim 1, and further discloses a first tunnel between the mobile terminal and a first network element of the mobile network is established for end-to-end service parameter signaling.

3GPP does not specifically disclose a second tunnel between the mobile terminal and a second network element of the mobile network is established for user data transmission after the reception of (resource authorization) identifier.

It would have been an obvious design choice to establish a second tunnel between the mobile terminal and a second network element of the mobile network is established for user data transmission after the reception of (resource authorization) identifier since the applicant has not disclosed weather the second tunnel resolves any stated problem or is for any particular purpose. And it seems like the first tunnel will serve the essential communication purposes between the mobile terminal and the mobile network.

Referring to claim 19, the combination of 3GPP/Moon discloses a wireless terminal as claimed in claim 15, and further discloses a first tunnel is established for end-to-end service parameter signaling (Figures 6.1-6.1b and 7.1-7.10).

3GPP does not specifically disclose a second tunnel for user data transmission after the reception of the resource authorization identifier.

It would have been an obvious design choice to modify 3GPP by establishing a second tunnel for user data transmission after the reception of the resource authorization identifier, since the applicant has not disclosed that having such additional tunnel solves any stated problems or is for any particular purpose and it appears that the establishing of the first tunnel would perform equally well any transmission of user data as suggested by 3GPP.

Claim 21 recites features analogous to the features of claim 19. Thus, the combination of 3GPP/Moon discloses all elements of claim 21 (please see the rejection of claim 19 above).

Claim 25 recites features analogous to the features of claim 1. Thus, the combination of 3GPP/Moon discloses all elements of claim 25 (please see the rejection of claim 1 above

5. Claims 5 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over 3GPP TS 23.234 V6.0.0 2004-03 (hereinafter 3GPP) in view of Moon et al (US 2003/0163577 A1) and further in view of Oba et al (US 2005/0163078).

Referring to claims 5 and 13, the combination of 3GPP/Moon discloses the method and network of claims 1 and 9.

The combination is silent on the tunnel between the mobile terminal and the mobile network being an IPSec tunnel, whereby the tunnel is established by utilizing an IKE (Internet Key Exchange) protocol.

In the field of endeavor, Oba discloses the tunnel between the mobile terminal and the mobile network is an IPSec tunnel, whereby the tunnel is established by utilizing an IKE (Internet Key Exchange) protocol ("IPsec tunnel for the new subnet is established by running IKE or IKEv2 over the latter IPsec tunnel").

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the combination of 3GPP/Moon by incorporating the teachings of Oba as claimed, for the purpose of providing a Multicast/Broadcast Traffic system and taking advantage of an additional Firewalls/Intrusion Detection system, and thus providing a securer network.

***Response to Arguments***

6. Applicant's arguments with respect to claims 1-25 have been considered but they are not persuasive.

In response to arguments that 3GPP does not disclose "a resource authorization identifier," and that NAI is not equivalent to "resource authorization identifier," the examiner asserts that the examiner is not relying only on NAI element of 3GPP to read on the resource authorization identifier. The applicant is referred to page 11 of 3GPP which discloses a WLAN Access Authorization shall occur upon the success of the authorization procedure. It shall take into account the user' profile and optionally information about the WLAN AN, such WLAN AN operator name, location information (e.g., country, telephone area code, city), WLAN AN throughput. This information is used to enable user-case scenarios like location based authentication/authorization, location based billing /customer care and location based service offerings.

Further, 3GPP discloses on page 12 that WLAN Authentication signaling is executed between WLAN UE and AAA server for purpose of Authenticating the end-user. Further, 3GPP discloses on page 13 that AAA server verifying wither WLAN access should be allowed to a subsc4r5ber and decide what access rules (e.g., bandwidth) should be applied to a subscriber .... using UE's location IP address allocation. From at least the above citations of 3GPP a person of ordinary skill in the art would be able to any of the access rules/policies (e.g., bandwidth) and/or authorization information would read on the resource authorization identifier.

***Conclusion***

7. **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred A. Casca whose telephone number is (571) 272-7918. The examiner can normally be reached on Monday through Friday from 9 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Harper, can be reached at (571) 272-7605. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Fred Casca/
Examiner, Art Unit 2617

/VINCENT P. HARPER/
Supervisory Patent Examiner, Art Unit 2617